

REMARKS

Claims 1 - 32 are pending.

Claims 1 - 7, 10 - 31 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kleinberger et al. (Patent No. US 6,252,707) in view of Karasawa et al. (US Patent No. 6,040,945). Reconsideration of this rejection is respectfully requested in view of the Examiner having misinterpreted the teachings of Kleinberger et al. and having mis-applied the teachings of Karasawa et al. as having relevance to the present invention, as discussed below.

Whereas Kleinberger et al. has been interpreted by the Examiner as showing (in Fig. 2) a display means that displays left and right images at respective left and right positions on a display panel 1, and as showing (in Fig. 3) that the left and right images may be partially overlapped on the display panel, the Examiner's interpretation of Fig. 3 is erroneous. What the Kleinberger et al. disclosure would convey to one of ordinary skill in the art is **not** that the displayed left and right images can advantageously be made to at least partially overlap so that a wide-angle field of view, stereographic image is obtained, as in applicant's invention. With regard to Fig. 3, Kleinberger et al. merely teaches that, under certain viewing conditions (one of which is described at col. 24, lines 35 - 38, and the other of which is described at col. 25, lines 12 - 18), the left and right (i.e., side-by-side) images as shown in Fig. 2 can be perceived as three images, with the center image being perceived as a 3-D image as a result of there actually being a left image and a right image superimposed at the center of the overall view field so that the center image is observed stereographically. The problems with the Fig. 2 embodiment of Kleinberger et al. are discussed at col. 26, lines 12 - 42, namely: (1) the maximum width image that can be viewed in this manner has an upper limit of the interpupillary distance of the viewer and (2) the side images will also be seen by the viewer. Although Kleinberger et al. in other embodiments, employs various means to solve the above two problems, none of these embodiments suggest that which is claimed in claim 1, namely, that the left and right images are partially overlapped on the display panel (thereby achieving a wide-angle field of view, as in the present invention). Nowhere in the references of record is there any teaching of the left and right images being partially overlapped on the display panel, as recited in claims 1 and 17. As claims 2 - 7 depend

from claim 1, and claims 18 - 25 depend from claim 17, these dependent claims patentably distinguish over the prior art of record at least as described above for the base claims 1 and 17.

With regard to the Examiner's reliance on Karasawa, both the left and the right observation light paths need to have their images magnified equally so as to provide a 3-D viewing sensation of the object, as otherwise these images will not coalesce and provide a three-dimensional viewing sensation. For this reason, the apparatus in Karasawa is suitable only for magnifying images that are to be viewed non-stereographically, since it can magnify only one of the light path images at any one time. Thus, the teachings of Karasawa do not make obvious what is claimed in claims 11, 14, 17, 18, 19, and 21 - 25.

Claims 8, 9, and 32 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kleinberger et al., in view of Karasawa and Waldern et al. Reconsideration of this rejection is respectfully requested. As noted above, the Examiner has misinterpreted Fig. 3 of Kleinberger et al., and Karasawa et al. is not applicable to a 3-D viewing situation. Nowhere in the references of record is there any teaching that would make the limitations of claim 1 or the limitations of claim 32 obvious. As claim 9 depends from claim 1, it patentably distinguishes over the prior art at least as described above for claim 1.

Having pointed out that the various rejections of claims 1 - 32 under 35 U.S.C. 103(a) are improper, it is respectfully requested that, unless more pertinent prior art is found, an early Notice of Allowability be provided.

Attached hereto is an IDS statement which lists U.S. Patent No. 5,311,220 to Eichenlaub, (which recently came to the undersigned's attention but was cited in a pending application more than 3 months ago) and U.S. Patent No. 6,095,652 to Trayner et al., which recently came to the undersigned's attention. In Fig. 10 of Eichenlaub there is disclosed, according to the undersigned's understanding, an apparatus that conveys left and right images to a viewer. The left and right images are displayed on the LCD 31, and the images at LCD 31 are imaged onto the mirror system 38. As different regions of the light emitting surface 30 are energized so as to direct light to the left and right eyes of an observer, the left and right images are alternately displayed on the LCD 31. However, the images in Eichenlaub are not capable of being displayed

with as wide a field angle as in the present invention. More specifically, claims 1, 10, and 11 (and dependent claims 2 - 9, which each depend from claim 1), as well as claims 17 and 27 (as well as dependent claims 18 - 25 which depend from claim 17) distinguish over Eichenlaub and the prior art of record at least by reason of the recitations in claims 1, 10 and 11, at lines 4 - 8 and in claims 17 and 27 at lines 5 - 9 and 4 - 8, respectively, which recite features of an "optical magnifying system" that are not disclosed in the prior art of record. Claims 12, and 28 distinguish over Eichenlaub and the prior art of record at least by reason of the recitation at the last 3 lines of each claim pertaining to there being at least two holographic optical elements of a particular construction. Claims 13 - 15 (as well as dependent claim 16 that depends from claim 15) distinguish over Eichenlaub and the prior art of record at least by reason of the recitation at lines 5 - 6 and 10 - 11 (for claim 13), at lines 5 - 6, 10 - 11 (for claim 14), and at lines 9 - 10, and 14 - 16 (for claim 15) that pertain to there being an optical magnifying system and a viewing system as recited. Claims 17, 26 and 27 (and dependent claims 18 - 25 which each depends from claim 17) distinguish over Eichenlaub and the prior art of record at least by reason of the recitations in claims 17 and 27, at lines 5 - 9, and at lines 4 - 8, respectively, which pertain to features of "an optical magnifying system" that are not disclosed in the prior art of record, as discussed above for claims 1 and 10. Claims 29 - 31, as well as claim 32 (which depends from claim 31) distinguish over Eichenlaub and the prior art of record at least by reason of the recitations at lines 8 - 10, 9 - 10, and 13 - 15, respectively, which pertain to features of a "viewing system" or "viewing optical system" recited therein.

With regard to U.S. Patent No. 6,095,652 to Trayner et al., the images in Trayner et al. are not capable of being displayed with as wide a field angle as in the present invention due to there being no optical magnifying system which meets the limitations as claimed in claims 1, 10, 11, 17, 26 or 27. Nor are there disclosed in Trayner et al. at least two holographic optical elements that meet the limitations as claimed in claims 12 or 28. Nor are there disclosed in Trayner et al. a viewing optical system or a viewing system that meets the limitations as claimed in claims 13, 14, 15, 29, 30 or 31. Thus, these claims, as well as the claims which depend therefrom, patentably distinguish over Trayner et al. at least for the reasons discussed above.

Attached hereto is a check in the amount of \$290.00 to cover the fees for a one-month extension of time in responding to the Office Action and for an IDS statement submitted after receipt of a first Office Action. If any additional fee is required, including any additional extension of time fee, please charge it to the undersigned's Deposit Account No. 01-2509.

Respectfully submitted,  
ARNOLD INTERNATIONAL

By Bruce Y. Arnold  
Bruce Y. Arnold  
Reg. No. 28,493

(Tel: 703-759-2991)

P.O. Box 129  
Great Falls, VA 22066